



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Laboratory Services and Applied Science Division

980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 21-0221

Project: 21-0221, Piney Point - Phase 2 - Reported by Floyd Wellborn

April 16, 2021

MEMORANDUM

SUBJECT: FINAL Analytical Report
Project: 21-0221, Piney Point - Phase 2

FROM: Floyd Wellborn
LSB Inorganic Chemistry Section Chief

THRU: Sandra Aker, Chief
Laboratory Services Branch

TO: Floyd Wellborn

Attached are the final results for the analytical groups listed below. This report shall not be reproduced except in full without approval of the Region 4 laboratory. These analyses were performed in accordance with the Laboratory Services Branch's Laboratory Operations and Quality Assurance Manual (LSB LOQAM) found at www.epa.gov/region4/sesd/asbsop. Any unique project data quality objectives specified in writing by the data requestor have also been incorporated into the data unless otherwise noted in the Report Narrative. Chemistry data have been verified based on the LSB LOQAM specifications and have been qualified by this laboratory if the applicable quality control criteria were not met. Verification is defined in Chapter 5 of the LSB LOQAM. For a listing of specific data qualifiers and explanations, please refer to the Data Qualifier Definitions included in this report. The reported results are accurate within the limits of the method(s) and are representative only of the samples as received by the laboratory.

Analyses Included in this report:

Method Used:

Accreditations:

Classical/Nutrient Analyses (CNA)

Ammonia as N

EPA 350.1 (Water)

ISO

Physical Properties (PHYSP)

Turbidity of Preserved Metals Samples

EPA 180.1 (Water)

NR



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Sample Disposal Policy

Due to limited space for long term sample storage, LSB's policy is to dispose of samples on a periodic schedule. Air samples collected in summa canisters will be disposed of 30 days following the issuance of this report. All other sample media including original samples, sample extracts and or digestates will be disposed of, in accordance with applicable regulations, 60 days from the date of this report.

This sample disposal policy does not apply to criminal samples which are held until the laboratory is notified by the criminal investigators that case development and litigation are complete.

These samples may be held in the laboratory's custody for a longer period of time. If samples require storage beyond the 60-day period, please contact the Sample Control Coordinator by e-mail at R4SampleCustody@epa.gov.

cc: Nardina Turner



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SAMPLES INCLUDED IN THIS REPORT

Project: 21-0221, Piney Point - Phase 2

Sample ID	Laboratory ID	Matrix	Date Collected	Date Received
Piney 9	E211612-01	Saline Water	4/14/21 12:45	4/15/21 11:20
Piney 8	E211612-02	Saline Water	4/14/21 12:10	4/15/21 11:20
Piney 6	E211612-03	Saline Water	4/14/21 11:25	4/15/21 11:20
Piney 3	E211612-04	Saline Water	4/14/21 10:35	4/15/21 11:20
Piney 18	E211612-05	Saline Water	4/14/21 10:10	4/15/21 11:20
Piney 17	E211612-06	Saline Water	4/14/21 11:25	4/15/21 11:20
Piney 7	E211612-07	Saline Water	4/14/21 12:00	4/15/21 11:20



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DATA QUALIFIER DEFINITIONS

U The analyte was not detected at or above the reporting limit.

ACRONYMS AND ABBREVIATIONS

CAS Chemical Abstracts Service

Note: Analytes with no known CAS identifiers have been assigned codes beginning with "E", the EPA ID as assigned by the EPA Substance Registry System (www.epa.gov/srs), or beginning with "R4-", a unique identifier assigned by the EPA Region 4 laboratory.

MDL Method Detection Limit - The minimum concentration of a substance (an analyte) that can be measured and reported with a 99% confidence that the analyte concentration is greater than zero.

MRL Minimum Reporting Limit - Analyte concentration that corresponds to the lowest demonstrated level of acceptable quantitation. The MRL is sample-specific and accounts for preparation weights and volumes, dilutions, and moisture content of soil/sediments.

TIC Tentatively Identified Compound - An analyte identified based on a match with the instrument software's mass spectral library. A calibration standard has not been analyzed to confirm the compound's identification or the estimated concentration reported.

ACCREDITATIONS:

ISO Accredited to ISO/IEC 17025:2017 and accreditation requirements for Forensic Science Testing Laboratories.

Refer to the certificate and scope of accreditation FT-0330 at:
<http://www.epa.gov/aboutepa/about-region-4s-science-and-ecosystem-support-division-sesd>

NR Not accredited for this test.

DW Accredited for conformance with ISO/IEC 17025:2017 and testing elements in the Fifth Edition of the Manual for the Certification of Laboratories Analyzing Drinking Water, EPA 815-R-05-004, 2005.

Refer to the certificate and scope of accreditation AT-2628 at:
<http://www.epa.gov/aboutepa/about-region-4s-science-and-ecosystem-support-division-sesd>

ISO/DW Accredited to ISO/IEC 17025:2017 and accreditation requirements for Forensic Science Testing Labs, and conformance with ISO/IEC 17025:2017 and testing elements in the Manual for the Certification of Laboratories Analyzing Drinking Water.



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Classical/Nutrient Analyses

Project: 21-0221, Piney Point - Phase 2

Sample ID: Piney 9

Lab ID: E211612-01

Station ID: PINEY 9

Matrix: Saline Water

Date Collected: 4/14/21 12:45

CAS Number	Analyte	Results	Qualifiers	Units	MDL MRL	Prepared	Analyzed	Method
7664-41-7	Ammonia as N	0.050	U	mg/L	0.012 0.030	4/15/21 16:12	4/16/21 10:05	EPA 350.1



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Physical Properties

Project: 21-0221, Piney Point - Phase 2

Sample ID: Piney 9

Lab ID: E211612-01

Station ID: PINEY 9

Matrix: Saline Water

Date Collected: 4/14/21 12:45

CAS Number	Analyte	Results	Qualifiers	Units	MDL MRL	Prepared	Analyzed	Method
E1640507	Turbidity	1.8		NTU	1.0	4/15/21 15:17	4/15/21 16:03	EPA 180.1



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Classical/Nutrient Analyses

Project: 21-0221, Piney Point - Phase 2

Sample ID: Piney 8

Lab ID: E211612-02

Station ID: PINEY 8

Matrix: Saline Water

Date Collected: 4/14/21 12:10

CAS Number	Analyte	Results	Qualifiers	Units	MDL MRL	Prepared	Analyzed	Method
7664-41-7	Ammonia as N	0.090		mg/L	0.012 0.030	4/15/21 16:12	4/16/21 10:05	EPA 350.1



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Physical Properties

Project: 21-0221, Piney Point - Phase 2

Sample ID: Piney 8

Lab ID: E211612-02

Station ID: PINEY 8

Matrix: Saline Water

Date Collected: 4/14/21 12:10

CAS Number	Analyte	Results	Qualifiers	Units	MDL MRL	Prepared	Analyzed	Method
E1640507	Turbidity	2.5		NTU	1.0	4/15/21 15:17	4/15/21 16:07	EPA 180.1



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Classical/Nutrient Analyses

Project: 21-0221, Piney Point - Phase 2

Sample ID: Piney 6

Lab ID: E211612-03

Station ID: PINEY 6

Matrix: Saline Water

Date Collected: 4/14/21 11:25

CAS Number	Analyte	Results	Qualifiers	Units	MDL MRL	Prepared	Analyzed	Method
7664-41-7	Ammonia as N	0.050	U	mg/L	0.012 0.030	4/15/21 16:12	4/16/21 10:05	EPA 350.1



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Physical Properties

Project: 21-0221, Piney Point - Phase 2

Sample ID: Piney 6

Lab ID: E211612-03

Station ID: PINEY 6

Matrix: Saline Water

Date Collected: 4/14/21 11:25

CAS Number	Analyte	Results	Qualifiers	Units	MDL MRL	Prepared	Analyzed	Method
E1640507	Turbidity	1.7		NTU	1.0	4/15/21 15:17	4/15/21 16:10	EPA 180.1



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Classical/Nutrient Analyses

Project: 21-0221, Piney Point - Phase 2

Sample ID: Piney 3

Lab ID: E211612-04

Station ID: PINEY 3

Matrix: Saline Water

Date Collected: 4/14/21 10:35

CAS Number	Analyte	Results	Qualifiers	Units	MDL MRL	Prepared	Analyzed	Method
7664-41-7	Ammonia as N	0.12		mg/l	0.012 0.030	4/15/21 16:12	4/16/21 10:05	EPA 350.1



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Physical Properties

Project: 21-0221, Piney Point - Phase 2

Sample ID: Piney 3

Lab ID: E211612-04

Station ID: PINEY 3

Matrix: Saline Water

Date Collected: 4/14/21 10:35

CAS Number	Analyte	Results	Qualifiers	Units	MDL MRL	Prepared	Analyzed	Method
E1640507	Turbidity	3.0		NTU	1.0	4/15/21 15:17	4/15/21 16:14	EPA 180.1



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Classical/Nutrient Analyses

Project: 21-0221, Piney Point - Phase 2

Sample ID: Piney 18

Lab ID: E211612-05

Station ID: PINEY 18

Matrix: Saline Water

Date Collected: 4/14/21 10:10

CAS Number	Analyte	Results	Qualifiers	Units	MDL MRL	Prepared	Analyzed	Method
7664-41-7	Ammonia as N	0.074		mg/l	0.012 0.030	4/15/21 16:12	4/16/21 10:05	EPA 350.1



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Physical Properties

Project: 21-0221, Piney Point - Phase 2

Sample ID: Piney 18

Lab ID: E211612-05

Station ID: PINEY 18

Matrix: Saline Water

Date Collected: 4/14/21 10:10

CAS Number	Analyte	Results	Qualifiers	Units	MDL MRL	Prepared	Analyzed	Method
E1640507	Turbidity	3.4		NTU	1.0	4/15/21 15:17	4/15/21 16:16	EPA 180.1



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Classical/Nutrient Analyses

Project: 21-0221, Piney Point - Phase 2

Sample ID: Piney 17

Lab ID: E211612-06

Station ID: PINEY 17

Matrix: Saline Water

Date Collected: 4/14/21 11:25

CAS Number	Analyte	Results	Qualifiers	Units	MDL MRL	Prepared	Analyzed	Method
7664-41-7	Ammonia as N	0.050	U	mg/L	0.012 0.030	4/15/21 16:12	4/16/21 10:05	EPA 350.1



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Physical Properties

Project: 21-0221, Piney Point - Phase 2

Sample ID: Piney 17

Lab ID: E211612-06

Station ID: PINEY 17

Matrix: Saline Water

Date Collected: 4/14/21 11:25

CAS Number	Analyte	Results	Qualifiers	Units	MDL MRL	Prepared	Analyzed	Method
E1640507	Turbidity	1.5		NTU	1.0	4/15/21 15:17	4/15/21 16:20	EPA 180.1



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Classical/Nutrient Analyses

Project: 21-0221, Piney Point - Phase 2

Sample ID: Piney 7

Lab ID: E211612-07

Station ID: PINEY 7

Matrix: Saline Water

Date Collected: 4/14/21 12:00

CAS Number	Analyte	Results	Qualifiers	Units	MDL MRL	Prepared	Analyzed	Method
7664-41-7	Ammonia as N	0.050	U	mg/L	0.012 0.030	4/15/21 16:12	4/16/21 10:05	EPA 350.1



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Physical Properties

Project: 21-0221, Piney Point - Phase 2

Sample ID: Piney 7

Lab ID: E211612-07

Station ID: PINEY 7

Matrix: Saline Water

Date Collected: 4/14/21 12:00

CAS Number	Analyte	Results	Qualifiers	Units	MDL MRL	Prepared	Analyzed	Method
E1640507	Turbidity	2.1		NTU	1.0	4/15/21 15:17	4/15/21 16:22	EPA 180.1



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Classical/Nutrient Analyses (CNA) - Quality Control
US-EPA, Region 4, LSASD

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 2104041 - C 350.1 Ammonia										
LCS (2104041-BS1)				Prepared: 04/15/21 Analyzed: 04/16/21						
EPA 350.1										
Ammonia as N	0.96700	0.050	mg/L	1.0000		96.7	90-110			
Matrix Spike (2104041-MS1)				Source: E211612-07		Prepared: 04/15/21 Analyzed: 04/16/21				
EPA 350.1										
Ammonia as N	1.0760	0.050	mg/L	1.0000	U	108	90-110			
Matrix Spike Dup (2104041-MSD1)				Source: E211612-07		Prepared: 04/15/21 Analyzed: 04/16/21				
EPA 350.1										
Ammonia as N	1.0720	0.050	mg/L	1.0000	U	107	90-110	0.372	10	
MRL Verification (2104041-PS1)				Prepared: 04/15/21 Analyzed: 04/16/21						
EPA 350.1										
Ammonia as N	0.035000	0.050	mg/L	0.050000		70.0	70-130			MRL-2



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Physical Properties (PHYSP) - Quality Control

US-EPA, Region 4, LSASD

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 2104060 - M Turbidity										
Blank (2104060-BLK1)					Prepared & Analyzed: 04/15/21					
EPA 180.1										
Turbidity	U	1.0	NTU							U
Blank (2104060-BLK2)					Prepared & Analyzed: 04/15/21					
EPA 180.1										
Turbidity	U	1.0	NTU							U
Reference (2104060-SRM1)					Prepared & Analyzed: 04/15/21					
EPA 180.1										
Turbidity	1.4800	1.0	NTU	1.4800		100	0-200			
Reference (2104060-SRM2)					Prepared & Analyzed: 04/15/21					
EPA 180.1										
Turbidity	16.100	1.0	NTU	16.100		100	0-200			
Reference (2104060-SRM3)					Prepared & Analyzed: 04/15/21					
EPA 180.1										
Turbidity	1.4900	1.0	NTU	1.4800		101	0-200			
Reference (2104060-SRM4)					Prepared & Analyzed: 04/15/21					
EPA 180.1										
Turbidity	16.200	1.0	NTU	16.100		101	0-200			



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Notes and Definitions for QC Samples

U The analyte was not detected at or above the reporting limit.

MRL-2 MRL verification for Non-Potable Water matrix